

## AUDIO PRODUCTION III

### COURSE DESCRIPTION

*Audio Production III* is designed to give students the advanced knowledge and technical skills needed to prepare them for post-secondary study or entry level employment in the audio industry. Students will develop skills in which to conduct complete recording sessions as well as building skills in mix-down, mastering, and other post production techniques. In all situations, students will present themselves with integrity and professional behavior.

*It is strongly recommended that administration and guidance follow the scope and sequence and course recommendations as listed.*

**Recommended:** Audio Production I, Audio Production II

**Recommended Credits:** 2

**Grade Levels:** 11<sup>th</sup> – 12<sup>th</sup>

**Number of Competencies:** 46

## **AUDIO PRODUCTION III**

### **STANDARDS**

- 1.0** Students will perform safety examinations and maintain safety records.
- 2.0** Students will demonstrate leadership, citizenship, and teamwork skills required for success in the school, community, and workplace.
- 3.0** Students will integrate reading, writing, math, and science skills and understand the impact of academic achievement in the workplace.
- 4.0** Students will demonstrate functional application of live sound reinforcement.
- 5.0** Students will demonstrate an understanding of audio/visual synchronization.
- 6.0** Students will complete a capstone recording project.
- 7.0** Students will understand the business/career aspects of the audio production industry.

## **AUDIO PRODUCTION III**

### **STANDARD 1.0**

Students will perform safety examinations and maintain safety records.

### **LEARNING EXPECTATIONS**

The student will:

- 1.1** Demonstrate a positive attitude regarding safety practices and issues.
- 1.2** Use and inspect personal protective equipment.
- 1.3** Inspect, maintain, and employ safe operating procedures with tools and equipment, such as hand and power tools, ladders, scaffolding, and lifting equipment.
- 1.4** Demonstrate continuous awareness of potential hazards to self and others and respond appropriately.
- 1.5** Assume responsibilities under HazCom (Hazard Communication) regulations.
- 1.6** Adhere to responsibilities, regulations, and Occupational Safety & Health Administration (OSHA) policies to protect coworkers and bystanders from hazards.
- 1.7** Adhere to responsibilities, regulations, and Occupational Safety & Health Administration (OSHA) policies regarding reporting of accidents and observed hazards, and regarding emergency response procedures.
- 1.8** Demonstrate appropriate related safety procedures.
- 1.9** Pass with 100 % accuracy a written examination relating to safety issues
- 1.10** Pass with 100% accuracy a performance examination relating to safety.
- 1.11** Maintain a portfolio record of written safety examinations and equipment examinations for which the student has passed an operational checkout by the instructor.

### **PERFORMANCE INDICATORS: EVIDENCE STANDARD IS MET**

The student:

- 1.1A** Is attentive during safety discussions.
- 1.1B** Actively seeks information about safe procedures.
- 1.1C** Responds positively to instruction, advice, and correction regarding safety issues.
- 1.1D** Does not deliberately create or increase hazards, such as by horseplay, practical jokes, or creating distractions.
- 1.1E** Reports to school or work physically ready to perform to professional standards, such as rested, or not impaired by medications, drugs, alcohol, etc.
- 1.2** Selects, inspects, and uses the correct personal protective equipment for the assigned task.
- 1.3A** Inspects power tools for intact guards, shields, insulation, and other protective devices.
- 1.3B** Inspects extension cords for the presence of a functional ground connection, prior to use.
- 1.3C** Operates and maintains tools in accordance with manufacturer's instructions and as required by regulation or company policy.
- 1.3D** Properly places and secures ladders and scaffolding prior to use.
- 1.4A** Is observant of personnel and activities in the vicinity of the work area.

- 1.4B** Warns nearby personnel, prior to starting potentially hazardous actions.
- 1.5A** When asked to use a new hazardous material, retrieves MSDSs (material safety data sheets), and identifies the health hazards associated with the new material.
- 1.5B** Reports hazards found on the job site to the supervisor.
- 1.6A** Erects shields, barriers, and signage to protect coworkers and bystanders prior to starting potentially hazardous tasks.
- 1.6B** Provides and activates adequate ventilation equipment as required by the task.
- 1.7A** Reports all injuries to self to the immediate supervisor.
- 1.7B** Reports observed unguarded hazards to their immediate supervisor.
- 1.8A** Complies with personal assignments regarding emergency assignments.
- 1.9A** Passes with 100% accuracy a written examination relating specifically to content area.
- 1.10A** Passes with 100% accuracy a performance examination relating specifically to welding tools, equipment and supplies.
- 1.11A** Maintains a portfolio record of written safety examinations and equipment examinations for which the student has passed an operational checkout by the instructor.

### **SAMPLE PERFORMANCE TASKS**

These are sample projects of the type and scale recommended to address one or more of the learning expectations for this standard. Other projects can be used at the instructor's discretion.

- Conduct a practice drill simulating a hazardous solvent spill in which an emergency action plan is to be implemented.
- Instruct a visitor to obviously approach the vicinity of a student conducting a hazardous activity and note the level of awareness demonstrated by the student.
- For a project requiring the use of ladders and/or scaffolding, note the proper placement and securing procedures followed by students.

### **INTEGRATION LINKAGES**

Language Arts, Mathematics, Technical Algebra, Technical Geometry, Algebra, Geometry  
English IV: Communication for Life, SkillsUSA Technical Championships, American Welding Society (AWS), Guide for Training and Qualification of Entry Level Welder, National Center for Construction Education Research (NCCER), Secretary's Commission on Achieving Necessary Skills (SCANS), Professional Development Program, SkillsUSA

## **AUDIO PRODUCTION III**

### **STANDARD 2.0**

Students will demonstrate leadership, citizenship, and teamwork skills required for success in the school, community, and workplace.

### **LEARNING EXPECTATIONS**

The student will:

- 2.1** Cultivate positive leadership skills.
- 2.2** Participate in the student organization directly related to their program of study as an integral part of classroom instruction.
- 2.3** Assess situations, apply problem-solving techniques and decision-making skills within the school, community, and workplace.
- 2.4** Participate as a team member in a learning environment.
- 2.5** Respect the opinions, customs, and individual differences of others.
- 2.6** Build personal career development by identifying career interests, strengths, and opportunities.

### **PERFORMANCE STANDARDS: EVIDENCE STANDARD IS MET**

The student:

- 2.1A** Demonstrates character and leadership using creative-and critical-thinking skills.
- 2.1B** Uses creative thought process by “thinking outside the box.”
- 2.2A** Relates the creed, purposes, motto, and emblem of their student organization, directly related to personal and professional development.
- 2.2B** Plans and conducts meetings and other business according to accepted rules of parliamentary procedure.
- 2.3A** Makes decisions and assumes responsibilities.
- 2.3B** Analyzes a situation and uses the Professional Development Program or career technical student organization materials directly related to the student’s program of study to resolve it.
- 2.3C** Understands the importance of learning new information for both current and future problem solving and decision making.
- 2.4A** Organizes committees and participates in functions.
- 2.4B** Cooperates with peers to select and organize a community service project.
- 2.5A** Researches different customs and individual differences of others.
- 2.5B** Interacts respectfully with individuals of different cultures, gender, and backgrounds.
- 2.5C** Resolves conflicts and differences to maintain a smooth workflow and classroom environment.
- 2.6A** Creates personal career development by identifying career interests, strengths, and opportunities.
- 2.6B** Identifies opportunities for career development and certification requirements.

- 2.6C** Plans personal educational paths based on available courses and current career goals.
- 2.6D** Creates a resumé that reflects student’s skills, abilities, and interests.

### **SAMPLE PERFORMANCE TASKS**

- Create a leadership inventory and use it to conduct a personal assessment.
- Participate in various career technical student organizations’ programs and/or competitive events.
- Implement an annual program of work.
- Prepare a meeting agenda for a specific career technical student organization monthly meeting.
- Attend a professional organization meeting.
- Develop a program of study within their career opportunities.
- Participate in the American Spirit Award competition with SkillsUSA.
- Complete *Professional Development Program Level I and Level II*, SkillsUSA.

### **INTEGRATION LINKAGES**

SkillsUSA, *Professional Development Program*; SkillsUSA; Communications and Writing Skills; Teambuilding Skills; Research; Language Arts; Sociology; Psychology; Math; Technical Math; English IV: Communication for Life; Social Studies; Problem Solving; Interpersonal Skills; Employability Skills; Critical-Thinking Skills; Secretary’s Commission on Achieving Necessary Skills (SCANS); Chamber of Commerce; Colleges; Universities; Technology Centers; Secretary’s Commission on Achieving Necessary Skills (SCANS)

## **AUDIO PRODUCTION III**

### **STANDARD 3.0**

Students will integrate reading, writing, math, and science skills and understand the impact of academic achievement in the work place.

### **LEARNING EXPECTATIONS**

The student will:

- 3.1** Assume responsibility for accomplishing classroom assignments and workplace goals within accepted time frames.
- 3.2** Develop advanced study skills.
- 3.3** Demonstrate and use written and verbal communication skills.
- 3.4** Read and understand technical documents such as regulations, manuals, reports, forms, graphs, charts, and tables.
- 3.5** Apply the foundations of mathematical principles such as algebra, geometry, and advanced math to solve problems.
- 3.6** Apply basic scientific principles and methods to solve problems and complete tasks.
- 3.7** Understand computer operations and related applications to input, store, retrieve, and output information as it relates to the course.
- 3.8** Research, recognize, and understand the interactions of the environment and *green* issues as they relate to the course work and to a global economy.

### **PERFORMANCE STANDARDS: EVIDENCE STANDARD IS MET**

The student:

- 3.1A** Uses appropriate time management to achieve goals.
- 3.1B** Arrives at school on time each day.
- 3.1C** Completes assignments and meets deadlines.
- 3.2A** Assesses current personal study skills.
- 3.2B** Demonstrates advanced note-taking ability.
- 3.2C** Formulates appropriate study strategies for given tasks.
- 3.3A** Communicates ideas, information, and messages in a logical manner.
- 3.3B** Fills out forms, reports, logs, and documents to comply with class and project requirements.
- 3.4A** Reads and understands technical documents and uses industry jargon, acronyms, and terminology appropriately.
- 3.4B** Recognizes the meaning of specialized words or phrases unique to the career and industry.
- 3.5A** Utilizes computation in adding, subtracting, multiplying, and dividing of whole numbers, fractions, decimals, and percents.
- 3.5B** Chooses the right mathematical method or formula to solve a problem.
- 3.5C** Performs math operations accurately to complete classroom and lab tasks.
- 3.6A** Understands scientific principles critical to the course.
- 3.6B** Applies scientific principles and technology to solve problems and complete tasks.

- 3.6C** Has knowledge of the scientific method (e.g., identifies the problem, collects information, forms opinions, and draws conclusions).
- 3.7A** Uses basic computer hardware (e.g., PCs, printers) and software to perform tasks as required for the course work.
- 3.7B** Understands capabilities of computers and common computer terminology (e.g., program, operating system).
- 3.7C** Applies the appropriate technical solution to complete tasks.
- 3.7D** Inputs data and information accurately for the course requirements.
- 3.8A** Researches and recognizes *green* trends in career area and industry.
- 3.8B** Examines current environmentally friendly trends.
- 3.8C** Applies sustainability practices by understanding processes that are non-polluting, conserving of energy and natural resources, and economically efficient.

### **SAMPLE PERFORMANCE TASKS**

- Examine and compile different learning styles for portfolios.
- Create calendars containing all activities and obligations for one month. Discusses how to handle conflicting or competing obligations then complete daily and weekly plans showing tasks, priorities, and scheduling.
- Complete self-assessments of study habits.
- Compute precise and exact measurements.
- Explore study strategies for different subjects and tasks then analyze two homework assignments and select the best strategies for completing them.
- Create “life maps” showing necessary steps or “landmarks” along the path to personal, financial, educational, and career goals.
- Take notes during counselor classroom visits and work in small groups to create flow charts of the path options.
- List attitudes that lead to success then rate individually in these areas. Work together to suggest strategies for overcoming the weaknesses identified own and partners’ self-assessments then share with the class the strategies developed.
- Research the Internet and other technology to collect and analyze data concerning climate change.
- Keep a data file of alternative energy sources and the sources’ impact on the environment.
- Develop a recycling project at home or for the school environment.

### **INTEGRATION LINKAGES**

SkillsUSA, *Professional Development Program*; SkillsUSA; Communications and Writing Skills; Teambuilding Skills; Research; Language Arts; Sociology; Psychology; Math; Technical Math; English IV: Communication for Life; Social Studies; Problem Solving; Interpersonal Skills; Employability Skills; Critical-Thinking Skills; Secretary’s Commission on Achieving Necessary Skills (SCANS); Chamber of Commerce; Colleges; Universities; Technology Centers; Secretary’s Commission on Achieving Necessary Skills (SCANS)



## **AUDIO PRODUCTION III**

### **STANDARD 4.0**

Students will demonstrate functional application of live sound reinforcement.

### **LEARNING EXPECTATIONS**

The student will:

- 4.1** Set up and correctly select microphones for live sound reinforcement.
- 4.2** Set up monitor speakers, front of house speakers, mixing board, and amplifier.
- 4.3** Provide a front of house mix and a stage monitor mix to include in-ear monitors.
- 4.4** Demonstrate differences in set up for speaking, canned music, live music with vocals, acappella vocals, and choirs.
- 4.5** Demonstrate sound set up for theater or school programs.

### **PERFORMANCE INDICATORS: EVIDENCE STANDARD IS MET**

The student:

- 4.1A** Sets up and correctly selects microphones for live sound reinforcement.
- 4.1B** Sets up and correctly selects proper speakers for live sound reinforcement.
- 4.2A** Sets up monitor speakers, Front of House speakers, mixing board, signal processor, and amplifier.
- 4.2B** Creates headphone mix.
- 4.3** Provides a Front of House mix and a stage monitor mix to include in-ear monitors.
- 4.4** Demonstrates differences in set up for speaking, canned music, live music with vocals, acappella vocals, and choirs.
- 4.5** Demonstrates sound set up for theater or school programs.
- 4.6** Correctly disassembles sound equipment and cables and properly stores them.

### **SAMPLE PERFORMANCE TASK**

- Set up live sound reinforcement for Senior play.
- Set up live sound reinforcement for student assembly meeting.
- Visit a convention center, indoor concert, outdoor concert, or church to observe sound engineers.

### **INTEGRATION LINKAGES**

Wikipedia, AES Sound Reinforcement Anthology, Sound Reinforcement Handbook, Audio Engineering for Sound Reinforcement, The Monitor Engineer's Role In Performance, In-Ear Monitors: Tips of the Trade, <http://www.prosoundweb.com/live/articles/daverat/driftng.shtml>, [www.howstuffworks.com](http://www.howstuffworks.com) .

## **AUDIO PRODUCTION III**

### **STANDARD 5.0**

Students will demonstrate an understanding of audio/video synchronization.

### **LEARNING EXPECTATIONS**

The student will:

- 5.1** Demonstrate understanding of synchronization.
- 5.2** Synchronize audio and sound effects with video.
- 5.3** Demonstrate ability to do video editing.
- 5.4** Demonstrate ability to do post production editing for video.

### **PERFORMANCE INDICATORS: EVIDENCE STANDARD IS MET**

The student:

- 5.1** Demonstrates understanding of synchronization software.
- 5.2** Synchronizes audio and sound effects with video.
- 5.3** Demonstrates ability to do video editing.
- 5.4** Demonstrates ability to do post production editing for video.

### **SAMPLE PERFORMANCE TASK**

- Syncs voice to animation.
- Syncs music track to video.
- Lists different protocols for synchronization.

### **INTEGRATION LINKAGES**

Wikipedia, AES Sound Reinforcement Anthology, Sound Reinforcement Handbook, Audio Engineering for Sound Reinforcement, The Monitor Engineer's Role In Performance, In-Ear Monitors: Tips of the Trade, <http://www.prosoundweb.com/live/articles/daverat/driftng.shtml> , [www.howstuffworks.com](http://www.howstuffworks.com) .

## **AUDIO PRODUCTION III**

### **STANDARD 6.0**

Students will complete a class/group capstone recording project.

### **LEARNING EXPECTATIONS**

The student will:

- 6.1** Select a music recording project.
- 6.2** Demonstrate studio set up and digital recording knowledge.
- 6.3** Demonstrate understanding of mixing, sequencing, and mastering digital tracks.
- 6.4** Create a CD cover and final packaging.

### **PERFORMANCE INDICATORS: EVIDENCE STANDARD IS MET**

The student:

- 6.1A** Makes a list of various artists, bands, or songwriters to use as recording project.
- 6.1B** Organizes and schedules necessary musicians and singers.
- 6.2** Sets up studio and recording software for recording session.
- 6.3** Mixes, sequences, and masters final product of recording project.
- 6.4** Creates a CD cover and final package of completed capstone project.

### **SAMPLE PERFORMANCE TASK**

- Select a music project with varied instruments and voices.
- Be creative in equipment and microphone selection.
- Intergrate with art department to aid in creating CD cover and packaging.

### **INTEGRATION LINKAGES**

Wikipedia, AES Sound Reinforcement Anthology, Sound Reinforcement Handbook, Audio Engineering for Sound Reinforcement, The Monitor Engineer's Role In Performance, In-Ear Monitors: Tips of the Trade, <http://www.prosoundweb.com/live/articles/daverat/driftng.shtml> , [www.howstuffworks.com](http://www.howstuffworks.com)

## **AUDIO PRODUCTION III**

### **STANDARD 7.0**

Students understand the business/career aspects of the audio production industry.

### **LEARNING EXPECTATIONS**

The student will:

- 7.1** Understand the roles of various industry professionals.
- 7.2** Understand the opportunities in the industry for freelance contractors.
- 7.3** Understand how to create invoices and standard billing practices for freelance labor.
- 7.4** Maintain high level of professionalism in dress and appearance.
- 7.5** Demonstrate ability to budget during times of unemployment.
- 7.6** Demonstrate ability to network within the audio community for freelance employment leads.
- 7.7** Demonstrate positive attitude and willingness to learn and share knowledge with peers.
- 7.8** Demonstrate strong work ethics.

### **PERFORMANCE INDICATORS: EVIDENCE STANDARD IS MET**

The student:

- 7.1** Discusses roles of producer, audio engineer, sound editor, etc.
- 7.2** Explores opportunities for freelance contractors.
- 7.3** Creates proper invoices and billing practices for freelance labor.
- 7.4** Maintains high level of professionalism.
- 7.5** Demonstrates ability to create personal budgets.
- 7.6** Demonstrates ability to network within the audio community for freelance employment leads.
- 7.7** Demonstrates positive attitude and willingness to learn and share knowledge with peers.
- 7.8** Demonstrates strong work ethics and promptness.

### **SAMPLE PERFORMANCE TASK**

- Visit a convention center audio department or independent audio company.
- Observe attitude and professionalism of audio engineers.
- Create various budget scenarios.

## **INTEGRATION LINKAGES**

Wikipedia, AES Sound Reinforcement Anthology, Sound Reinforcement Handbook, Audio Engineering for Sound Reinforcement, The Monitor Engineer's Role In Performance, In-Ear Monitors: Tips of the Trade, <http://www.prosoundweb.com/live/articles/daverat/drifting.shtml> [www.howstuffworks.com](http://www.howstuffworks.com) \_Mathematics, Technical Math, Physics, Science, Technology Literacy, English IV: Communications for Life, Problem-Solving, SkillsUSA, National Science Foundation, Computer Skills, Internet Navigation Skills, Presentation Skills, Critical Thinking and Problem Solving, Technical Writing Skills, Secretary's Commission on Achieving Necessary Skills (SCANS), Occupational Safety and Health Administration (OSHA), Tennessee Occupational Safety and Health Administration (TOSHA), Environmental Protection Agency (EPA), [www.howstuffworks.com](http://www.howstuffworks.com)

## **AUDIO PRODUCTION III**

### **SAMPLING OF AVAILABLE RESOURCES**

[www.howstuffworks.com](http://www.howstuffworks.com)

Recording in the Digital World: Complete Guide to Studio Gear and Software  
by Thomas E Rudolph, Vincent A Jr Leonard

Digital Home Recording: Tips, Techniques, and Tools for Home Studio Production  
edited by John Chappell

Practical Recording Techniques by Bruce Bartlett, Jenny Bartlett

Arranging in the Digital World: Techniques for Arranging Popular Music Using Today's Electronic...by Corey Allen

Promises to Keep: Technology, Law, and the Future of Entertainment by William W Fisher

Home Recording Power by Ben Milstead

On-Location Recording Techniques by Bruce Bartlett, Jenny Bartlett

This Business of Music: The Definitive Guide to the Music Industry  
by M William Krasilovsky, Sidney Schemel

The Art of Digital Audio by John Watkinson

The Audiopro Home Recording Course by Bill Gibson